

Dendroarchaeology on Svalbard



Svalbard is a Norwegian archipelago in the Arctic Ocean. It is about midway between continental Norway and the North Pole. According to tradition Svalbard was discovered by the Dutchman Barentsz in 1596. This means that the history of Svalbard is young. In the following Centuries people from all over Europe came here for hunting and whaling.



Shipwrecks and other objects

The Svalbard Environmental Protection Act states that all traces of human activity dating from 1945 or earlier are protected elements of the cultural heritage. This applies to permanent cultural monuments as well as to unattached artifacts.

In the present project we did 'fieldwork' in the stores of Svalbard Museum. 16 objects were chosen for analysis: Objects of oak (*Quercus* sp.), pine (*Pinus sylvestris*) and spruce (*Picea* sp.). The samples were taken as cores or discs. So far we have been able to date five items - 4 ship parts and one ladder - one piece of oak and four of pine. The oldest object dates to ca. AD 1730, and the youngest to AD 1956.

How old is old?

Ladder, Scots pine (*Pinus sylvestris*), 23x23x299cm, probably from a (Russian) hunting lodge.

152 rings, dated AD 1805-1956.

81 sapwood rings, bark surface.

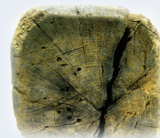
Time of felling: **winter AD 1956/1957**

Dendroprovenance: Karelia, eastern part of northern Fennoscandia.



Part of ship, floor-timber (aft?), Scots pine (*Pinus sylvestris*), 10.5x32x326cm, with sewing/withes.

270 rings, dated AD 1649-1918. 84 sapwood rings, no bark surface. Time of felling: **AD 1918** or shortly after. Dendroprovenance: Russia (Archangelsk).



Part of ship, probably bitt (pullert), oak (*Quercus* sp.), 14x15x102cm.

95 rings, dated AD 1630-1724.

14 sapwood rings, no bark surface.

Time of felling: c. AD 1730.

Dendroprovenance: Coastal region of Northern Europe (D, NL, B, DK).

Part of ship, big rib (most likely), Scots pine (*Pinus sylvestris*), ca. 30x30x255cm,

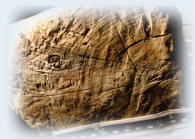
with wooden pegs (*Pinus sylvestris*).

245 rings, dated AD 1560 to AD 1804.

No sapwood visible.

Time of felling: AD 1804 or shortly after.

Dendroprovenance: Northern part of Norway/Sweden.



Part of ship, plank (or gunwale?), Scots pine (*Pinus sylvestris*), 4x17x400cm, with sewing/withes and wedges.

224 rings, dated AD 1690-1913. 55 sapwood rings, no bark surface.

Time of felling: AD 1913 or shortly after. Dendroprovenance: Russia (Archangelsk).



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References

Claudia Baittinger & Niels Bonde. Dendrochronological and wood anatomical examination of finds from historical shipwrecks etc. found on the shores of Svalbard, now kept in the Svalbard Museum in Longyearbyen - Material from wooden shipwrecks and other objects. NNU report 55, 2015. DigitalMuseum is a database for Norwegian museums and collections: digitalmuseum.no. Photos: Svalbard Museum, National Museum of Denmark, Wikipedia.